

WHAT IS CLAIMED IS:

1. A method of providing speech recognition with barge-in for a voice processing system comprising the steps of:
 playing out a prompt to a user;
 receiving audio input from the user while said prompt is still being played out;
 performing speech recognition on said audio input to determine a corresponding text;
 performing lexical analysis on said text to determine whether or not the text satisfies one or more conditions; and
 responsive to said text satisfying said one or more conditions, terminating the playing out of the prompt;
 otherwise, continuing the playing out of said prompt.
2. The method of claim 1, further comprising the step, responsive to said step of continuing the playing out of said prompt, of discarding said text.
3. The method of claim 1, wherein said step of performing lexical analysis to determine whether or not the text satisfies one or more conditions comprises the step of scanning the text to see if it contains one or more predetermined words.

- 1 4. The method of claim 3, wherein said one or more predetermined words are
2 specific to the particular prompt being played out.
- 1 5. The method of claim 1, in which said voice processing system and said user
2 communicate with each other over a telephone network, whereby the prompt is played
3 out over a telephone connection, and said audio input is received back over the
4 telephone connection.
- 1 6. The method of claim 1, further comprising the step of using one or more
2 acoustic parameters of the audio input to assist determining whether to continue or to
3 terminate playing out of said prompt.

1 7. A voice processing system for providing speech recognition with barge-in, said
2 voice processing system comprising:

3 means for playing out a prompt to a user;

4 means for receiving audio input from the user while said prompt is still being
5 played out;

6 means for performing speech recognition on said audio input to determine a
7 corresponding text;

8 means for performing lexical analysis on said text to determine whether or not
9 the text satisfies one or more conditions;

10 means responsive to said text satisfying said one or more conditions, for
11 terminating the playing out of the prompt and;

12 otherwise, means for continuing the playing out of said prompt.

1 8. The voice processing system of claim 7, further comprising the means,
2 responsive to said means of continuing the playing out of said prompt, for discarding
3 said text.

1 9. The voice processing system of claim 7, wherein said means for performing
2 lexical analysis to determine whether or not the text satisfies one or more conditions
3 comprises means for scanning the text to see if it contains one or more predetermined
4 words.

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- 1 10. The voice processing system of claim 9, wherein said one or more
2 predetermined words are specific to the particular prompt being played out.
- 1 11. The voice processing system of claim 7, in which said voice processing
2 system and said user communicate with each other over a telephone network, whereby
3 the prompt is played out over a telephone connection, and said audio input is received
4 back over the telephone connection.
- 1 12. The voice processing system of claim 7, wherein said means for receiving
2 caller input includes a voice activity detector for discriminating between speech input
3 and other forms of tone or noise input.
- 1 13. The voice processing system of claim 7, further comprising means for
2 calculating one or more acoustic parameters of the audio input to assist determining
3 whether to continue or to terminate playing out of said prompt.

1 14. A computer readable medium containing computer program instructions for a
2 voice processing system for providing speech recognition with barge-in, said
3 computer program instructions comprising instructions for:

4 playing out a prompt to a user;
5 receiving audio input from the user while said prompt is still being played out;
6 performing speech recognition on said audio input to determine a
7 corresponding text;
8 performing lexical analysis on said text to determine whether or not the text
9 satisfies one or more conditions;
10 responsive to said text satisfying said one or more conditions, terminating the
11 playing out of the prompt and;
12 otherwise, continuing the playing out of said prompt.

1 15. The computer readable medium of claim 4, further comprising the instruction,
2 responsive to said instruction of continuing the playing out of said prompt, of
3 discarding said text.

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16. The computer readable medium of claim 4, wherein said instruction of performing lexical analysis to determine whether or not the text satisfies one or more conditions comprises the instruction of scanning the text to see if it contains one or more predetermined words.

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17. The computer readable medium of claim 16, wherein said one or more predetermined words are specific to the particular prompt being played out.

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18. The computer readable medium of claim 4, in which said voice processing system and said user communicate with each other over a telephone network, whereby the prompt is played out over a telephone connection, and said audio input is received back over the telephone connection.

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19. The computer readable medium of claim 4, further comprising the instruction of using one or more acoustic parameters of the audio input to assist determining whether to continue or to terminate playing out of said prompt.

- 1 20. A voice processing system for providing speech recognition with barge-in,
2 said voice processing system comprising:
3 circuitry for playing out a prompt to a user;
4 circuitry for receiving audio input from the user while said prompt is still
5 being played out;
6 circuitry for performing speech recognition on said audio input to determine a
7 corresponding text;
8 circuitry for performing lexical analysis on said text to determine whether or
9 not the text satisfies one or more conditions;
10 circuitry responsive to said text satisfying said one or more conditions, for
11 terminating the playing out of the prompt and;
12 otherwise, circuitry for continuing the playing out of said prompt.
- 1 21. The voice processing system of claim 20, further comprising circuitry,
2 responsive to said circuitry of continuing the playing out of said prompt, for
3 discarding said text.

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1 22. The voice processing system of claim 21, wherein said circuitry for
2 performing lexical analysis to determine whether or not the text satisfies one or more
3 conditions comprises circuitry for scanning the text to see if it contains one or more
4 predetermined words.

1 23. The voice processing system of claim 22, wherein said one or more
2 predetermined words are specific to the particular prompt being played out.

1 24. The voice processing system of claim 23, in which said voice processing
2 system and said user communicate with each other over a telephone network, whereby
3 the prompt is played out over a telephone connection, and said audio input is received
4 back over the telephone connection.

1 25. The voice processing system of claim 24, wherein said circuitry for receiving
2 caller input includes a voice activity detector for discriminating between speech input
3 and other forms of tone or noise input.

1 26. The voice processing system of claim 25, further comprising circuitry for
2 calculating one or more acoustic parameters of the audio input to assist determining
3 whether to continue or to terminate playing out of said prompt.